

Appendix G

RWSP Wastewater Services Policies

RWSP Wastewater Service Policies

A. Explanatory material. The wastewater services policies guide the county in both providing wastewater services to its customers and maintaining the wastewater system in a cost-effective, environmentally responsible manner. These policies shall also guide King County's development and operation of community treatment systems.

King County provides wholesale wastewater treatment and disposal service to component agencies. The county's wastewater service area boundary generally coincides with the boundaries of these component agencies, including certain areas in Snohomish county and Pierce county. The county is to provide wastewater services to areas within the respective urban growth boundaries and in rural areas only to protect public health and safety, in conformance with state provisions and local growth management act policies and regulations.

Wastewater Services Policies	How Implemented in 2004–2006
<p>WWSP-1: King County shall provide wastewater services to fulfill the contractual commitments to its component agency customers in a manner that promotes environmental stewardship, recognizes the value of wastewater in the regional water resource system and reflects a wise use of public funds.</p>	<p>King County has long-term agreements to provide sewage disposal and treatment services with 33 local governments and one Indian Tribe.</p> <p>Environmental stewardship is an important component of the county's wastewater treatment service; WTD's mission is to protect public health and enhance the environment by treating and reclaiming water, recycling solids and generating energy. WTD's vision of creating resources from wastewater is carried out in recognition of the overall value of wastewater.</p> <p>WTD provides high quality wastewater treatment in as cost-effective manner as possible. The division regularly evaluates projects in the planning process and design phase to identify potential cost-savings. WTD bonds are highly rated and receive low interest rates.</p>
<p>WWSP-2: King County shall continue to foster tribal relations as appropriate to structure processes for joint water quality stewardship.</p>	<p>WTD regularly works with tribes on its plans and projects. Activities with the tribes during the 2004 to 2006 timeframe include:</p> <ul style="list-style-type: none"> • Entering into a sewage disposal agreement with the Muckleshoot Indian Tribe; the tribe took ownership over a portion of Auburn's sewer service area • Working with the Puyallup Tribe to address shellfish contamination of the Quartermaster Harbor area of Vashon-Maury Island • Working with the Muckleshoot Indian and Suquamish Tribes in the decision process for cleaning up Duwamish River sediments • Carrying out research studies that are part of the Brightwater mitigation agreement with the Suquamish Tribe regarding marine habitat in Puget Sound; the results of these studies will be also be shared with the Tulalip Tribes

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	<ul style="list-style-type: none">• Entering into agreements with the Suquamish Tribe and the Muckleshoot Indian Tribe regarding mitigation for the Brightwater project• Working closely with the Snoqualmie Tribe on the Carnation Treatment Plant and entering into an agreement with the tribe to accelerate the wetland discharge option for the Carnation plant• Reviewing results of Sammamish River monitoring with the Muckleshoot Indian Tribe• Coordinating with the Muckleshoot Indian Tribe to identify and address concerns regarding the design of the Ballard Siphon Repair project.
WWSP-3: King County shall not accept additional wastewater directly from private facilities within the boundaries of a component agency without the prior written consent of such component agency.	WTD has received no such requests from private facilities since the adoption of the RWSP.
WWSP-4: King County's wastewater service area generally has been developed along those boundaries adopted in the original metropolitan Seattle sewerage and drainage survey, substantive portions of which were adopted as the county's comprehensive water pollution abatement plan and amended. King County's wastewater service area consists of the service areas of the component agencies with which a sewage disposal agreement has been established (agreement for sewage disposal, section 2) and the county's service area boundary is the perimeter of these areas. The service area boundary for sewer service provided to Snohomish county and Pierce county shall not exceed each county's urban growth boundary. The service area boundary within King County shall be consistent with countywide planning policy CO-14 and the King County Comprehensive Plan which permit sewer expansion in rural areas and resource lands where needed to address specific health and safety problems. To protect public health and safety, the county may assume in accordance with state procedures, the ownership of existing sewer treatment and conveyance facilities that have been constructed by a sewer district organized under state law.	The county's wastewater service area boundary remains consistent with this policy.
WWSP-5: Extensions of existing conveyance facilities or construction of new conveyance facilities must be consistent with King County's	WTD evaluates its projects during the planning process to ensure consistency with the county's land use plans and policies. WTD maintains and reviews up-to-date

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land use plans and policies, and certified by potentially affected land use jurisdictions as consistent with their adopted land use plans and policies.	local capital improvement plans for jurisdictions and sewer districts in the county's wastewater service area and works closely with local jurisdictions through all phases of a project that is planned within their jurisdiction.
WWSP-6: King County shall operate and maintain its facilities to protect public health and the environment, comply with regulations and improve services in a fiscally responsible manner.	<p>WTD's mission is to protect public health and enhance the environment by treating and reclaiming water, recycling solids and generating energy. Extensive resources have been committed to maintaining the integrity of the wastewater system and preventing sanitary sewer overflows (SSOs). The Industrial Waste and Local Hazardous Waste Management programs work to control pollutants at their sources and prevent those pollutants from reaching the county's treatment plants. In 2006, the West Point and South plants received the National Association of Clean Water Agencies (NACWA) Platinum Peak Performance Award for operating five consecutive years with no permit exceptions.</p> <p>The King County Council's review of WTD's programs, priorities, and costs during the annual rate setting process and council's budget process provides additional assurance that WTD is carrying out its programs in a fiscally responsible manner.</p>
WWSP-7: King County shall plan, design and construct wastewater facilities in accordance with standards established by regulatory agencies and manuals of practice for engineering.	<p>WTD designs and constructs its wastewater treatment facilities to ensure the county fully complies with or exceeds regulatory and permit requirements. WTD applies good science and engineering to its planning, design, and construction of facilities and it follows industry-recognized standards. As a result, the county's wastewater system exceeds the reliability standards of most major metropolitan areas and has been able to absorb record storm events in recent years with little effect on public health and safety.</p> <p>To ensure the county is keeping up-to-date with regulations and standards information, WTD participates in national organizations and associations that address issues such as pumping standards, treatment and odor control standards and technologies, and predictive modeling tools. In addition, WTD follows the guidelines in the <i>Criteria for Sewage Works Design</i> manual. The Washington State Department of Ecology prepares this manual, also known as the "Orange Book". It serves as a guide for the design of wastewater collection, treatment, and reclamation systems and addresses requirements that will lead to approvable plans. State code (WAC 173-240-040) requires that sewer plans and specifications are reasonably consistent with the Orange Book.</p>
WWSP-8: King County shall construct, operate and maintain facilities to prevent raw sewage overflows and to contain overflows in the	<p>Implementation of the RWSP ensures that adequate wastewater capacity will be available when needed.</p> <p>The various sections and work units of WTD coordinate</p>

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<p>combined collection system. In the event of a raw sewage overflow, the county shall initiate a rapid and coordinated response including notification of public health agencies, the media, the public and the affected jurisdiction. Preserving public health and water quality shall be the highest priority, to be implemented by immediately initiating repairs or constructing temporary diversion systems that return flow back to the wastewater system.</p>	<p>to assess facilities' needs and prioritize projects to prevent overflows. WTD's forecasting and demand-modeling capabilities, in-field flow monitoring, and ongoing facilities' inspection provide essential information to identify and address capacity, operational, and maintenance needs.</p> <p>WTD has established emergency response procedures in the event of sewage overflows.</p>
<p>WWSP-9: To ensure the region's multibillion-dollar investment in wastewater facilities, an asset management program shall be established that provides for appropriate ongoing maintenance and repair of equipment and facilities. The wastewater maintenance budget, staffing levels and priorities shall be developed to reflect the long-term useful life of wastewater facilities as identified by the asset management program.</p> <p><i>(Ordinance 15602 amended this policy to specify the establishment of an asset management program; prior to being amended, the policy stated that ongoing maintenance and repair of facilities shall be a high priority of King County.)</i></p>	<p>A formal and detailed asset management program is being developed to optimize the useful life of county wastewater facilities. In 2004, WTD went through a benchmarking process comparing the agency with 22 Australian and New Zealand utilities that are recognized world leaders in the institution of asset management practices. This process helped to identify what is working well in WTD's asset management program and what areas need improvement.</p> <p>A comprehensive asset management strategic plan is under way and anticipated to be complete by the end of 2007; this plan will be updated annually. The plan will include information on best management practices for all assets and refine the long-range capital replacement program to best predict which assets will need to be replaced, when they will need to be replaced, and a corresponding budget.</p>
<p>WWSP-10: The asset management program shall establish a wastewater facilities assets management plan, updated annually, establishing replacement of worn, inefficient and/or depreciated capital assets to ensure continued reliability of the wastewater infrastructure.</p> <p><i>(Ordinance 15602 amended this policy and replaced the words "King County" at the beginning of the policy with "The asset management program".)</i></p>	<p>Regularly scheduled condition assessments are performed on the conveyance system and facility structures. Findings and rehabilitation recommendations are reported in a Facilities Inspection Annual Report.</p> <p>Forecasted asset replacement plans for process equipment, facility structures and conveyance system is a major product of the asset management program.</p>
<p>WWSP-11: King County shall design, construct, operate and maintain its facilities to meet or exceed regulatory requirements for air, water and solids emissions as well as to ensure worker, public and system safety.</p>	<p>WTD's treatment plants continue to meet, and in most cases exceed permit requirements. In 2006, the West Point and South plants received the National Association of Clean Water Agencies (NACWA) Platinum Peak Performance Award for operating five consecutive years with no permit exceptions.</p> <p>The Industrial Waste Program permits discharges into the sewer that are not hazardous to workers and cause no environmental harm.</p> <p>In the case of emergencies, WTD has procedures in place to ensure worker, public, and system safety.</p>

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WWSP-12: King County shall accept sewage, septage and biosolids from outside its service area provided that it is consistent with the King County Comprehensive Plan or the comprehensive plan of the source jurisdiction, capacity is available and no operating difficulties are created. The county shall establish a rate to recover costs from accepting sewage, septage and biosolids from outside its service area.	Services are monitored for consistency with applicable plans and to ensure they cause no adverse impact to the wastewater system. A separate rate, based on solids content, has been established to cover the costs of processing deliveries of septage and biosolids at the South Treatment Plant.
WWSP-13: King County shall identify the potential for “liability protection” for component agencies for unexpected costs associated with water quality requirements.	This policy was developed in 1999, soon after the Chinook salmon was listed as a threatened species under the Endangered Species Act. There was discussion that if the county were to do a Habitat Conservation Plan (HCP) for the entire wastewater service area, there might be a way for the county’s component agencies to achieve “liability protection” under WTD’s HCP. WTD discontinued the work on the HCP in April 2005 after the first phase was completed (see Chapter 9).
WWSP-14: King County shall continue its long-standing commitment to research and development funding relating to water quality and technologies for the wastewater system.	<p>In the period from 2004 through 2006, the county conducted pilot-scale studies on the membrane bioreactor (MBR) technology being installed in the new Carnation and Brightwater treatment plants. The studies provided valuable information regarding process control, peaking capabilities, process optimization, and nutrient removal. In addition, the MBR studies provided an opportunity for operations and maintenance staff to become familiar with the technology.</p> <p>A 1-megawatt fuel cell demonstration project was initiated at the South Treatment Plant in 2004 and completed in 2006.</p> <p>The county has also begun assessing the presence and fate of endocrine disrupting compounds in wastewater, surface waters and soils as well as the analytical procedures necessary to detect minute quantities of these compounds; this work will continue in 2007.</p>
<p>WWSP-15: King County will consider development and operation of community treatment systems under the following circumstances:</p> <ol style="list-style-type: none"> 1. The systems are necessary to alleviate existing documented public health hazards or water quality impairment; 2. Connections to public sewers tributary to conventional wastewater treatment facilities are not technically or economically feasible; 3. Installation of on-site septic systems is not technically feasible; 4. Properties to be served by said systems are within the jurisdiction and service area of a 	Community treatment service continues to be provided in accordance with this policy. WTD owns and operates the Beulah Park/Cove Treatment Facility on Vashon Island. This facility began operating in November 2001, and received its first State Waste Discharge permit from The Washington State Department of Ecology (Ecology) on October 31, 2005.

Appendix G. Wastewater Services Policies and Implementation in 2004-2006

Wastewater Services Policies	How Implemented in 2004–2006
local government authority authorized to provide sewer service; 5. The local sewer service provider agrees to own and operate the collection system tributary to the community treatment system; 6. Development of the community systems and provision of sewer service are consistent with all applicable utility and land use plans; and Public sewer extensions shall be in compliance with King County Comprehensive Plan Policy F-313 as in effect on March 11, 1999.	